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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/189,793	11/12/98	LIM	B K-039

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EXAMINER	
ELALLAM, A	
ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 10/31/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/189,793

Applicant(s)

LIM, BYUNG KEUN

Examiner

AHMED ELALLAM

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 1998.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, it is not clear what is meant by the phrase "transmitting first data of a plurality of users from the mobile station to the base station", Because, a plurality of users transmitting from one single mobile station does not have a meaning. Similarly, the meaning of the phrase "each first data of a user incorporating one first unique code assigned to the user" is not clear, because it is already stated that "transmitting first data of a plurality of users" and that is confusing. More specifically it is not clear to what first data is referred to.

Similar remarks as discussed above apply to the phrase "transmitting second data of a plurality of users from the base station to the mobile station by incorporating to the second data a second plurality of unique code indicating a communication from the base station to the mobile station, each second data of a user incorporating one second unique code assigned to the user". More specifically, it is not clear what second data it is referred to, because "second

data” was referred to as from a plurality of users, while in another part of the claim it refers to data from each second user.

Also, it is not clear what is meant by “the base station receives the first data by multiplying each of the first data with a first unique code assigned to a user”, because receiving a first data and multiplying each of first data is confusing. See remark above.

In claim 5, the phrase “incorporating the data of a plurality of users with a plurality of unique codes” is confusing. Because it already stated in the claim the feature of “designating N unique codes to indicate either a forward direction communication or a reverse direction communication” and that is not clear if the designating unique codes are the same as the incorporating codes or they represent a different set of codes.

In claim 9, the phrases “said first unique code” and “said second unique code” lack antecedent basis.

Also in claim 9, the phrase “a base station having first data of a plurality of users incorporated with a first plurality of unique codes” in combination with the phrase “wherein said base station receives said first data by multiplying said first data with said first unique code” is confusing, because it does not distinguish of which of first codes is used. Also, the phrase “a mobile having said first data” is confusing because it is already indicated that the base station have first data of a plurality of users”, and having a mobile station that have first data of a plurality of users is contradictory with the use of one mobile station.

In claim 10, the phrases "each first data of a user" and "each data of a second user" lack antecedent basis.

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 11 and 12 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claim 11, the specification does not adequately describe the followings entities: a first recoverer, a first circulator, second recoverer, second circulator. More specifically the specification does not describe the elements of the above entities and how these element are connected and how they are implemented to provide the functions associated with.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10, 13 and 14, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Omura, US (5,235,615).

Regarding claim 1, with reference to figure 1, Omura discloses a mobile communication method between a remote unit (mobile station) and a base station comprising the steps of:

Having each chip codeword of each remote-communications signal to be orthogonal to chip codewords of a plurality of remote communication signals which are modulated with a spread-spectrum and that for a particular two-way communications channel between a particular remote unit and the base station, the unique chip codeword used for the base-communications signal and the remote communications signal may be identical, See column 6, lines 28-51.

Having a plurality of remote-communications signals which are modulated with spread-spectrum, the remote communication-signal communicates information from each remote unit (mobile station), see column 5, lines 4-18. In addition, Omura discloses that the base station 110 communicates to the plurality of remote units with a plurality of base-communication signals, and that the plurality of remote units communicate to the base station 110, see column 6, lines 16-42. (Corresponding to: designating N unique codes to indicate either a communication from the mobile station to the base station or a communication from the base station to the mobile station, each unique code having an orthogonal property, and to transmitting first data of a plurality of users from the mobile station to the base station by incorporating to the first data a first plurality of unique codes indicating a communication from the mobile station to the to the

base station, each first data of a user incorporating one first unique code assigned to the user, and to transmitting a second data of a plurality of users from the base station to the mobile station by incorporating to the second data a second plurality of unique codes indicating a communication from the base station to the mobile station, each second data of user incorporating one second unique code assigned to the user and where in the base station receives the first data by multiplying each of the first data with a first unique code assigned to the user and wherein the mobile station receives the second data by multiplying each of the second data with a second unique code assigned to the user).

Note: the feature of unique codes indicating a communication from base station to mobile station or from mobile station to base station is inherent to Omura's communication system, because that is needed for communications from mobile station to base station and vice versa. Moreover by having a unique code-word for each remote unit or from base station (base station code-words) is a form of indicating to or from the communications signal is to be sent).

Regarding claim 3, Omura discloses that for a particular two-way communication channel between a particular remote unit and the base station, the unique chip codeword for the base communications signal and the remote-communication signal may be identical, see column 6, lines 47-51.

(Corresponding to the data incorporated with the first unique codes and the second unique codes are transmitted and received through one channel).

Regarding claim 4, Omura discloses that Having a plurality of remote-communications signals which are modulated with spread-spectrum, the remote

communication-signal communicates information from each remote unit (mobile station), see column 5, lines 4-18. In addition, Omura discloses that the base station 110 communicates to the plurality of remote units with a plurality of base-communication signals, and that the plurality of remote units communicate to the base station 110, see column 6, lines 16-42. Omura also disclose that for a particular two-way communication channel between a particular remote unit and the base station, the unique chip codeword for the base communications signal and the remote-communication signal may be identical, see column 6, lines 47-51. (Corresponding to the step of designating N unique codes, $N/2$ unique codes are designated to indicate a communication from the mobile station to the base station and $N/2$ unique codes are designated to indicate a communication from the base station to the mobile station).

Regarding claims 5-8, claims 5-8 are apparatus claims and have substantially the same scope of their respective claims 1-4, thus they are subject to the same rejection.

Regarding claim 9 and 10, claim 9 and 10 have substantially the same scope of claim 1, thus they are subject to the same rejection.

Regarding claims 13, and 14, claims 13 and 14 have substantially the same scope of claims 2 and 3, thus they are subject to the same rejection.

Note: the fact of spreading at one side of a communication system indicate that despreading must be performed at the receiving side so that the reconstruction of the signal transmitted can be provided.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Eizenhofer et al, US (4,688,210); Gilhousen et al, US (4,901,307); Yun US (5,909,471); Kotzin et al, US (6,038,263).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AHMED ELALLAM whose telephone number is (703) 308-6069. The examiner can normally be reached on 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kizou Hassan can be reached on (703) 305-4744. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

October 24, 2001

AHMED ELALLAM
Examiner
Art Unit 2662


Ajit Patel
Primary Examiner